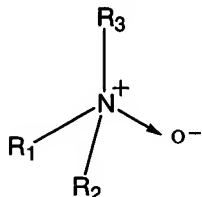


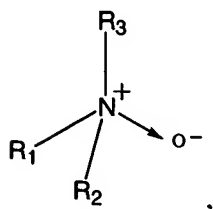
What is claimed is:

1. In an aqueous based fracturing fluid, the improvement consisting of blending therein a small but sufficient amount of an amine oxide corresponding to the formula:



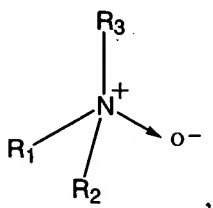
- wherein R<sub>1</sub> is an aliphatic group of from 6 to about 20 carbon atoms, and wherein R<sub>2</sub> and R<sub>3</sub> are each independently alkyl of from 1 to about 4 carbon atoms, to facilitate the removal of fracturing fluid filtrate from the formation.
2. The fracturing fluid defined by claim 1 wherein R<sub>1</sub> is an alkyl or alkenyl group.
  3. The fracturing fluid defined by claim 1 wherein R<sub>1</sub> is an alkyl group of 8 to 12 carbon atoms.
  4. The fracturing fluid defined by claim 3 wherein R<sub>1</sub> is a linear alkyl group.
  5. The fracturing fluid defined by claim 1 wherein R<sub>2</sub> and R<sub>3</sub> are each methyl or ethyl.
  6. The fracturing fluid defined by claim 5 wherein R<sub>2</sub> and R<sub>3</sub> are each methyl.
  7. The fracturing fluid defined by claim 3 wherein R<sub>2</sub> and R<sub>3</sub> are each methyl.
  8. In the method of fracturing a subterranean formation penetrated by a well bore comprising injecting an aqueous based fracturing fluid, optionally carrying a proppant, into and through said wellbore at a pressure sufficient to fracture said subterranean formation to thereby create a continuous conductive zone from the tip of the fracture back to the wellbore, the improvement consisting of adding a small but sufficient amount of an amine oxide to promote rapid cleanup of the filtrate and increase permeability of the formation to hydrocarbon fluids, said amine oxide

corresponding to the formula:



wherein R<sub>1</sub> is an aliphatic group of from 6 to about 20 carbon atoms, and wherein R<sub>2</sub> and R<sub>3</sub> are each independently alkyl of from 1 to about 4 carbon atoms.

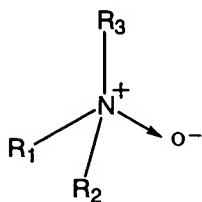
9. The fracturing method defined by claim 8 wherein the amine oxide is present in at least the initial portions of the fracture fluid that is injected into the well (the pad fluid).
10. The fracturing method defined by claim 8 wherein the amine oxide is added to the fracture fluid essentially constantly throughout the fracturing treatment.
11. The fracturing method defined by claim 8 wherein said amine oxide is added in amounts of from 0.01 to about 1 percent, weight by weight basis.
12. An improved aqueous fracture fluid, said fracture fluid comprising: an aqueous carrier fluid containing a viscosifying amount of a solvatable polysaccharide and a small but sufficient amount of an amine oxide to promote rapid cleanup of the filtrate and increase permeability of the formation to hydrocarbon fluids, said amine oxide corresponding to the formula:



wherein R<sub>1</sub> is an aliphatic group of from 6 to about 20 carbon atoms, and wherein R<sub>2</sub> and R<sub>3</sub> are each independently alkyl of from 1 to about 4 carbon atoms.

13. The fracture fluid defined by claim 12 wherein said solvatable polysaccharide is a galactomannan gum, a glycomannan gum or a cellulose derivative.

14. The fracture fluid defined by claim 12 wherein said solvatable polysaccharide is guar or a guar derivative.
15. The fracture fluid defined by claim 14 wherein said solvatable polysaccharide is guar, hydroxypropylguar, carboxymethyl guar, or carboxymethylhydroxypropyl guar.
16. The fracture fluid defined by claim 12 wherein said solvatable polysaccharide is crosslinked.
17. The fracture fluid defined by claim 16 wherein said solvatable polysaccharide is crosslinked with a borate or zirconium or titanium crosslinking agent.
18. The fracture fluid defined by claim 17 wherein said solvatable polysaccharide is guar, hydroxypropylguar, carboxymethyl guar, or carboxymethylhydroxypropyl guar and the crosslinker is a zirconium or titanium crosslinking agent.
19. The fracture fluid defined by claim 17 wherein said solvatable polysaccharide is guar or carboxymethylhydroxypropyl guar and the crosslinker is a zirconium crosslinking agent.
20. The fracture fluid defined by claim 17 wherein said solvatable polysaccharide is guar or carboxymethylhydroxypropyl guar and the crosslinker is a titanate crosslinking agent.
21. The fracture fluid defined by claim 17 wherein said solvatable polysaccharide is guar and the crosslinker is a borate crosslinking agent.
22. In an aqueous based fracturing fluid, the improvement consisting of blending therein a small but sufficient amount of an amine oxide corresponding to the formula



wherein R<sub>1</sub> is an aliphatic group of from 6 to about 20 carbon atoms, and wherein R<sub>2</sub>

and R<sub>3</sub> are each independently alkyl of from 1 to about 4 carbon atoms, to get a contact angle greater than 60 degrees.